### **Spring Mounting Clips**

# Warth International Ltd

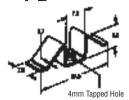
#### Single Clips





#### **Double Clips**





A convenient and reliable method of mounting plastic power devices, applying an even pressure across the body. Produces excellent heat transfer characteristics

Available as single or double clips. The double clip requires one screw, and is suitable for any panel or pad thickness. Zinc plated, clear passivated finish. Isolation voltage 1kV.

		Max. Panel	Max. Pad	Max. Force	Mftrs.	Order	
Packages		Thickness (mm)	Thickness (mm)	(kg)	List No.	Code	
1 TO-220		2.0	0.2	3.0	TSC704	557-729	
1 TO-3P, 1	TO-218, TO-247	2.0	0.5	3.5	TSC903	557-730	
2 TO-220		_	_	_	TSC607-ZP	520-111	
2 TO-3P, 1	TO-218, TO-247	_	_	_	TSC506-ZP	520-135	
						126	

					120
Order Multiple=10	Order		Price	Each	
Package	Code	10+	100+	250+	1K+
Single Clips					
TO-220	557-729				
TO-218 etc.	557-730				
Double Clips					
TO-220	.520-111				
TO-218 etc.	.520-135				

### **Transistor Insulating Bushes**



- For use with screw mounted transistors
- Isolates transistors from heatsinks
- Popular TO-220 and TO-247 sizes
- Nylon construction
- Suitable for use with Sil-Pad and other thermal pads
- Sold in packs of 10

### FOR Sil-Pad TRANSISTOR PADS SEE PAGE 464

					24
Pack Quanti	ty=10		Price P	er Pack	
Size	Order Code	1+	25+	100+	1K+
T0-220	936-649				
T0-3P	936-637				

### Thermal Interface Materials

### **Heatsink Compound**





- Eliminates thermal 'hotspots'
- Silicon oil based Excellent thermal resistance, typically
- Volume resistivity 5  $10^{14}\Omega/cm$
- Operating temperature range -40°C to +200°C
- Excellent thermal stability
- Choice of container size

		Mftrs.			Price	Each		
		List No.	Order Code	1+	5+	10+	25+	
	4gm tube	120-SA	335-4076					
П	60gm jar	120-2	335-4106					
П	140gm tube	120-5	335-4040					
П	230gm jar	120-8	335-4039					
П	2.27kg can	120-80	335-4064					
V								

### **Transistor Insulating Kits**



#### Notes:

520-202 is high voltage TO-3 kit giving 2kV isolation. Standard TO-3 kits give 1kV isolation. 520-172 and 520-251 TO-3 kits use 4.37mm high bushes, shank length 3.2mm. 520-184 kit uses 6.35mm high bushes, shank length 5.2mm.

The kits with silicone impregnated washer eliminate the need for heatsink compound.

 $\Diamond$  520-238 and 522-648 are suitable for TO-218/TO-3P devices with rounded tab(eg, some bipolar

transistors).

◆ 522-650 is suitable for T0-218/T0-3P devices with rectangular tab (eg, all T0-3P power MOSFET's).

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Order Multiple=10 Type	Order Code	10+	Price 250+	Each 1K+	10K+
Kits with Mica Washer					
TO-3 (4.37mm bush)	.520-172				
TO-3 (6.35mm bush)	520-184				
TO-3 (2kV)	520-202				
TO-220	.520-214				
TO-126	520-226				
♦ SOT-93 (TO-3P, TO-218)	520-238				
Kits with Silicone Impre	gnated Washer				
TO-3	520-251				
T0-66	520-275				
TO-126	.522-624				
TO-220	.522-636				
♦ SOT-93 (TO-3P, TO-218) ♦ TO-3P. TO-218	.522-648 522-650				
▼10-3F, 10-210	322-030				

### **High Flow Phase Change Material Electrically Insulative**

## EED TOUIST



- Handles like a Sil-Pad at room temperature, flows like grease at +65°C (pressure dependent)
- Convenient alternative to grease and mica washer
- Thixotropic retains its shape
- Ideal for use with spring/clip mounted devices Coated on both sides of an insulative substrate
- +2150°C operating temperature Thermal resistnace 1.6 °C-cm2/W
- Breakdown voltage 4000V

Order Multiple=10	Order Code	10+	Price Each 100+	1000+
Package TO-220 TO-3P	168-932 168-944			
Order Multiple=1 100mm x 100mm sheet	168-828	1+	20+	100+

continued